

SCOPE OF CLAIMS

Sub B/ 1. An instant printer comprising an exposure device for
projecting printing light based on image data, and a pair of
5 spread rollers, wherein the instant printer records a latent
image in an exposure area of a predetermined size on an instant
film that includes a processing fluid, by exposing the instant
film to the printing light, and develops the latent image into
a positive image by spreading the processing fluid over the
10 exposed instant film through the spread rollers, characterized
in that:

the exposure device comprises a printing head for
projecting the printing light linearly along a main scan
direction, and a scanning mechanism for moving the printing head
15 relative to the instant film in a sub scan direction
perpendicular to the main scan direction, wherein an
illumination range of the printing light by the printing head
is longer in the main scan direction than a length in the main
scan direction of the exposure area, whereas a sub scanning
20 range by the scanning mechanism is longer than a length in the
sub scan direction of the exposure area.

2. An instant printer according to claim 1, wherein the
instant film is contained in a case that is formed with an
25 exposure opening for exposing the exposure area, and the size
of the illumination range relative to the exposure area is
determined in accordance with clearances provided between the
case and the instant film.

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3. An instant printer according to claim 2, wherein the printing head is at least partly inserted in the exposure opening.

5 4. An instant printer according to claim 3, wherein the exposure opening is larger than the exposure area, whereas the illumination range of the printing head is confined in the exposure opening when the case is loaded in a loading chamber.

10 5. An instant printer according to claim 1, wherein the printing head is moved from a scanning start position that is located before the exposure area in the sub scan direction, to a scanning end position that is beyond the exposure area in the sub scan direction, and is driven based on image data of one
15 frame line sequentially from the scanning start position to the scanning end position, to accomplish one sub scanning.

20 6. An instant printer according to claim 5, wherein the printing head is designed to record a number of pixels along a line extending in the main scan direction, the number being more than a necessary number for recording pixels through the entire length of the exposure area in the main scan direction, and wherein drive data corresponding to the pixels of one line recorded by the printing head is produced from the image data.

25 7. An instant printer according to claim 1, further comprising a device for connecting an external memory to the instant printer, and a device for reading out image data stored

in the external memory, wherein the exposure device may be driven based on the image data read out from the external memory.

8. An instant printer according to claim 7, further comprising an imaging device for photographing a subject, wherein an image of a subject photographed through the imaging device is recorded on the instant film by driving the exposure device based on image data obtained from the imaging device.

9. An instant printer according to claim 8, further comprising a device for compressing image data of a subject photographed through the imaging device and writing it on the external memory, and a device for expanding compressed image data as it is read out from the external memory, wherein the exposure device may be driven based on the expanded image data.

10. An instant printer according to claim 9, further comprising a device for synthesizing image data read out from the external memory with image data photographed through the imaging device, wherein the exposure device may be driven based on the synthesized image data.

11. A printing method for recording a latent image in an exposure area of a predetermined size on an instant film that includes a processing fluid, by projecting printing light from an exposure device onto the instant film based on image data, and developing the latent image into a positive image by

spreading the processing fluid over the exposed instant film through a pair of spread rollers, characterized in that:

an illumination range of the printing light on the instant film by the exposure device is determined to be larger than the exposure area, so the entire exposure area may be exposed even where the instant film deviates from a predetermined position relative to the exposure device.

12. A printing method according to claim 11, wherein the instant film is contained in a case that is formed with an exposure opening for exposing the exposure area, and the size of the illumination range relative to the exposure area is determined in accordance with clearances provided between the case and the instant film.

15 Sub 17 13. An instant printer comprising a loading chamber for loading a plurality of instant films that include a processing fluid, a printing head for projecting printing light onto a photosensitive surface of the loaded instant film on the basis of image data, a scanning mechanism for moving the printing head along the photosensitive surface of the instant film, and a pair of spread rollers for spreading the processing fluid over the exposed instant film, the instant printer being characterized by comprising:

25 a light-shielding housing that covers up at least a moving range of the printing head in a light-tight fashion.

14. An instant printer according to claim 13, wherein the light-shielding housing covers up the scanning mechanism besides the moving range of the printing head.

5 15. An instant printer according to claim 13, wherein the light-shielding housing is formed integrally with the loading chamber.

505 a27 16. An electronic still camera comprising an imaging
10 device for obtaining image data by photographing a subject, a loading chamber for loading a plurality of instant films that include a processing fluid, a printing head for projecting printing light onto a photosensitive surface of the loaded instant film on the basis of image data, a scanning mechanism
15 for moving the printing head along the photosensitive surface of the instant film, and a pair of spread rollers for spreading the processing fluid over the exposed instant film, the electronic still camera being characterized by comprising:

a light-shielding housing that covers up at least a moving
20 range of the printing head in a light-tight fashion.

505 a27 17. An electronic still camera comprising an imaging
device for photographing a subject, an exposure device for exposing an instant film that includes a processing fluid on
25 the basis of image data of the subject photographed through the imaging device, and a pair of spread rollers for ejecting the exposed instant film out of a camera body while spreading the

processing fluid over the exposed instant film, the electronic still camera being characterized by comprising:

a device for connecting an external memory to the instant printer, a device for compressing image data of a subject photographed through the imaging device and writing it on the connected external memory, and a device for expanding compressed image data that is read out from the external memory, wherein the exposure device may be driven based on the image data read out from the external memory.

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18. An electronic still camera according to claim 17, further comprising a device for synthesizing image data read out from the external memory with image data photographed through the imaging device, and a device for displaying a composite picture based on the synthesized image data, wherein the composite picture may be printed by driving the exposure device based on the synthesized image data.

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19. An electronic still camera according to claim 18, wherein the removably attachable memory previously stores decorative image data that is to be synthesized with the subject image data.

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20. An electronic still camera according to claim 19, wherein the external memory is a memory card that is removably attachable to the camera body.

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